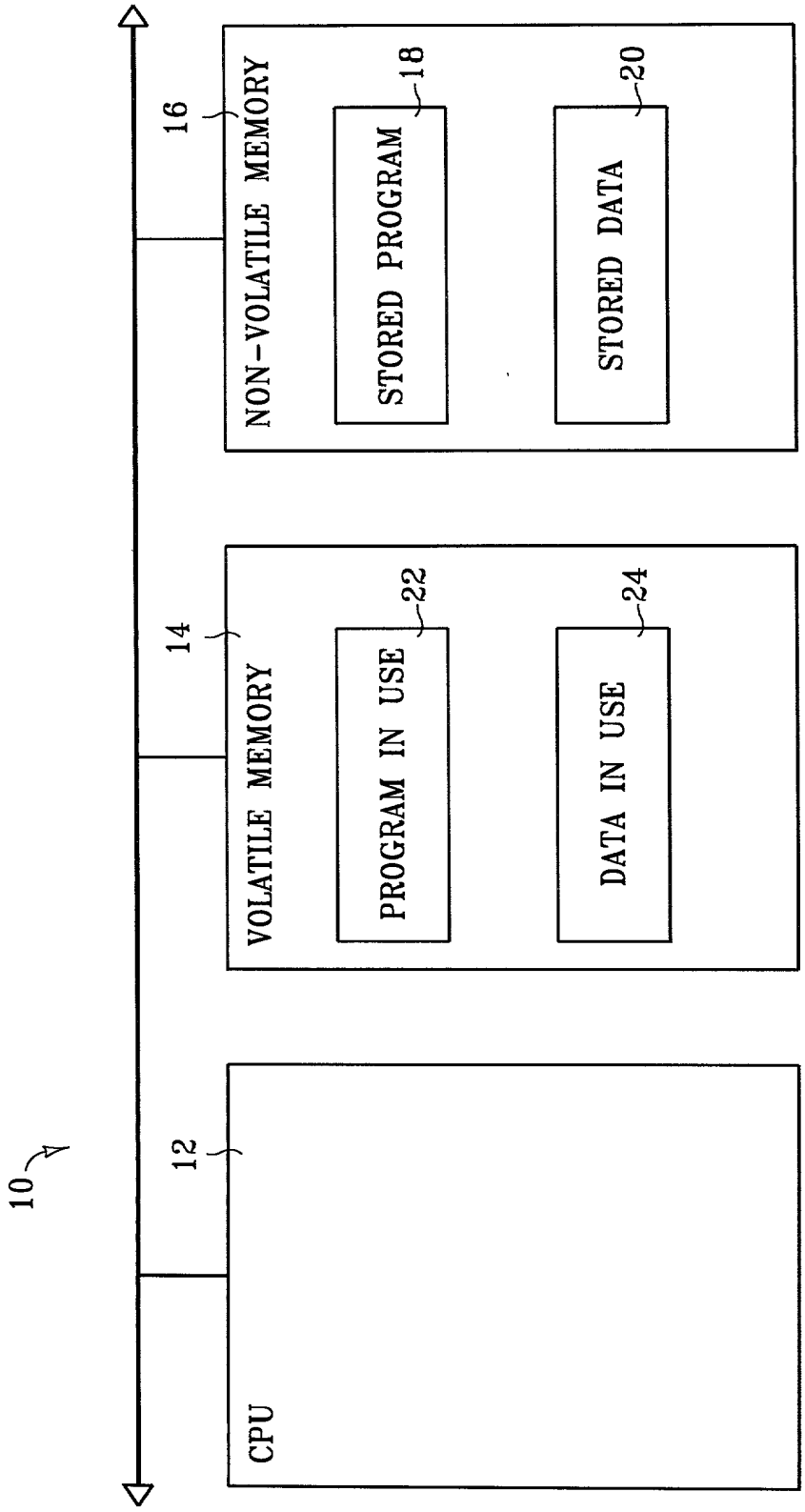
10
12
CPU
14
VOLATILE MEMORY
22
PROGRAM IN USE
24
DATA IN USE
16
NON-VOLATILE MEMORY
18
STORED PROGRAM
20
STORED DATA

FIG. 1

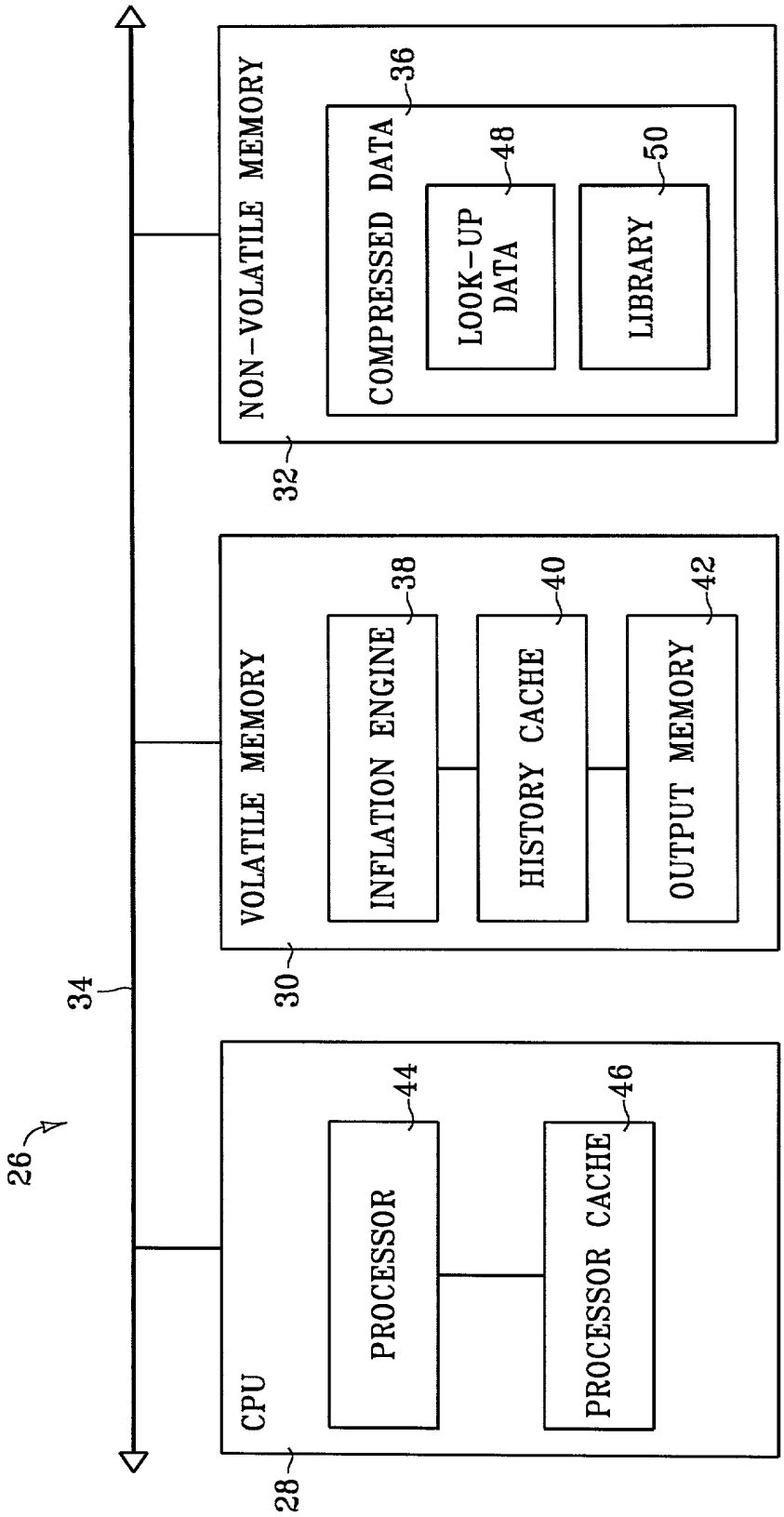
26
34
28
CPU
PROCESSOR
44
PROCESSOR CACHE
46
30
VOLATILE MEMORY
INFLATION ENGINE
38
HISTORY CACHE
40
OUTPUT MEMORY
42
32
NON-VOLATILE MEMORY
COMPRESSED DATA
36
LOOK-UP DATA
48
LIBRARY
50

FIG. 2

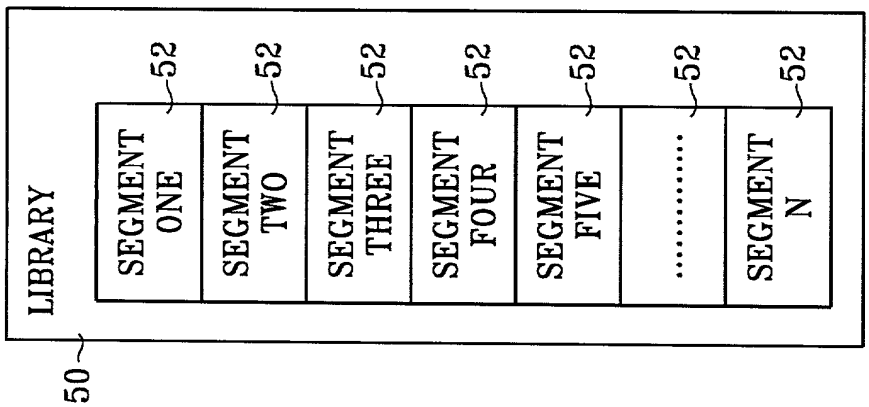
LIBRARY
50
SEGMENT ONE
SEGMENT TWO
SEGMENT THREE
SEGMENT FOUR
SEGMENT FIVE
.....
SEGMENT N
52

FIG. 3

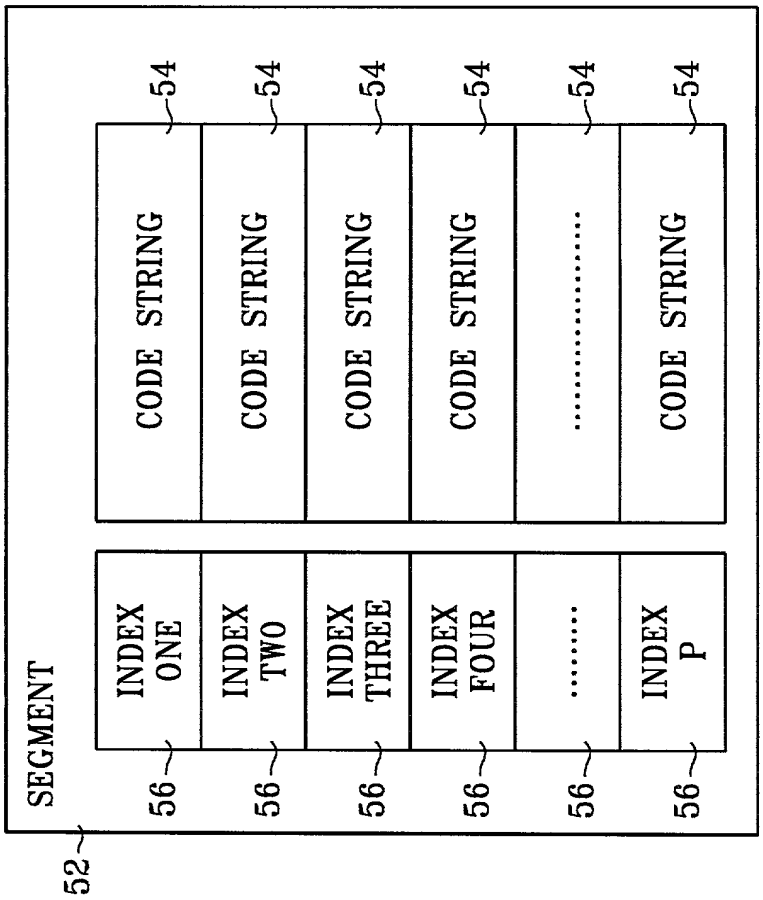
SEGMENT
52
INDEX ONE
INDEX TWO
INDEX THREE
INDEX FOUR
.....
INDEX P
56
CODE STRING
.....
54

FIG. 4

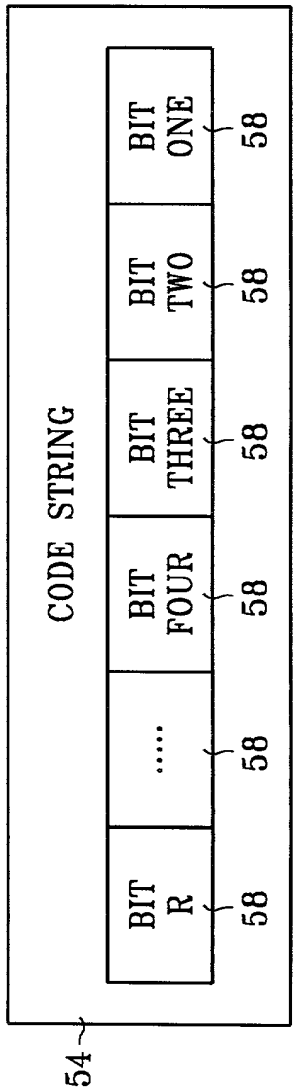
54
CODE STRING
BIT R
.....
BIT FOUR
BIT THREE
BIT TWO
BIT ONE
58
58
58
58
58
58

FIG. 5

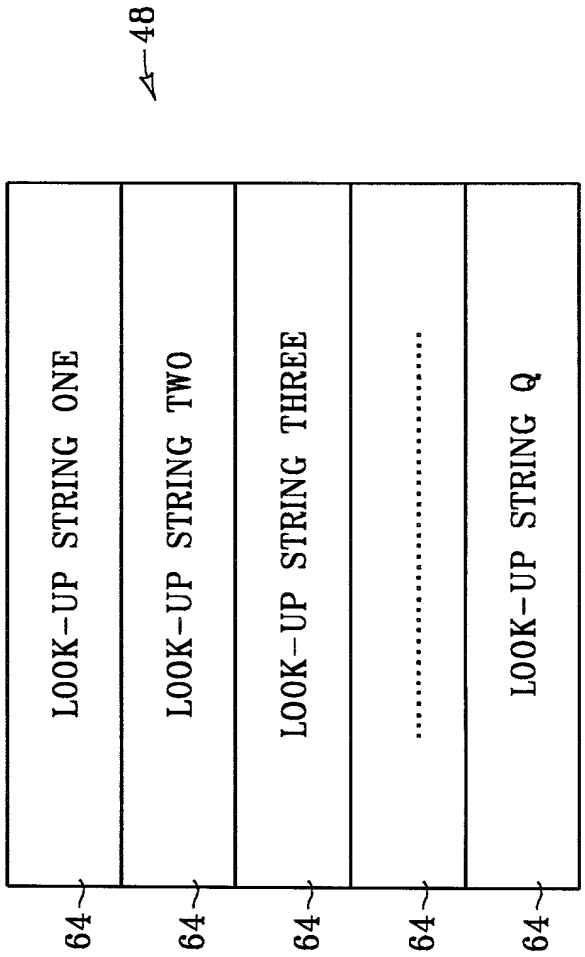
48
LOOK-UP STRING ONE
LOOK-UP STRING TWO
LOOK-UP STRING THREE
.....
LOOK-UP STRING Q
64
64
64
64
64

FIG. 7

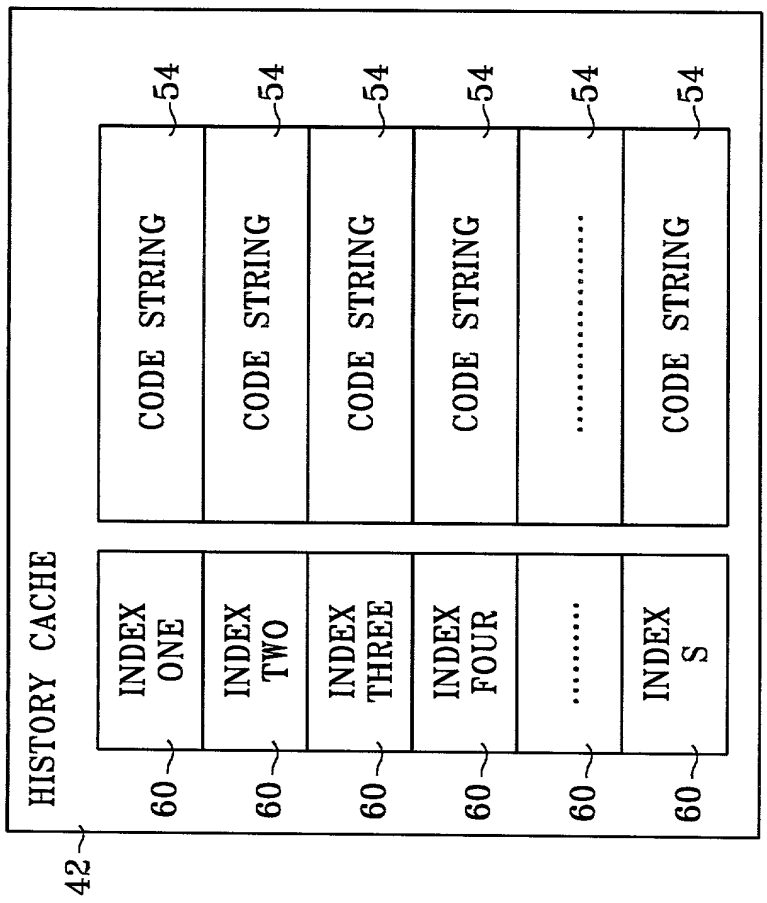
HISTORY CACHE
42
INDEX ONE
INDEX TWO
INDEX THREE
INDEX FOUR
.....
INDEX S
60
CODE STRING
.....
54

FIG. 6

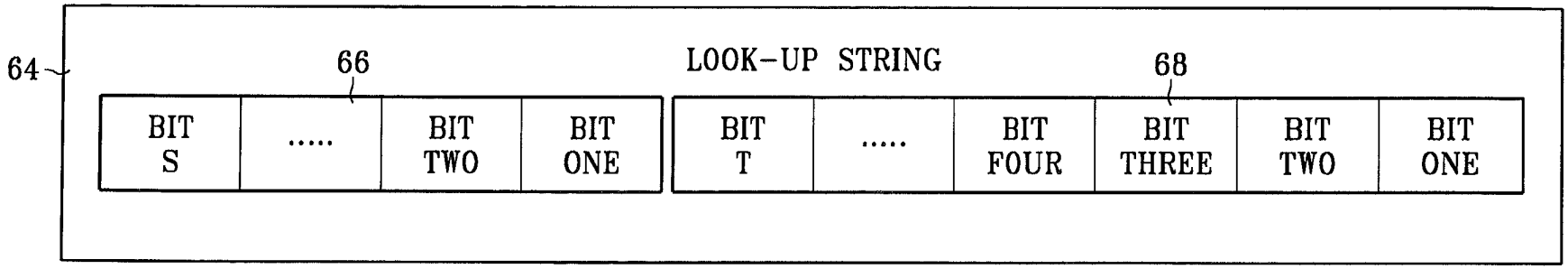
64
66
LOOK-UP STRING
68
BIT S
.....
BIT TWO
BIT ONE
BIT T
.....
BIT FOUR
BIT THREE
BIT TWO
BIT ONE

FIG. 8

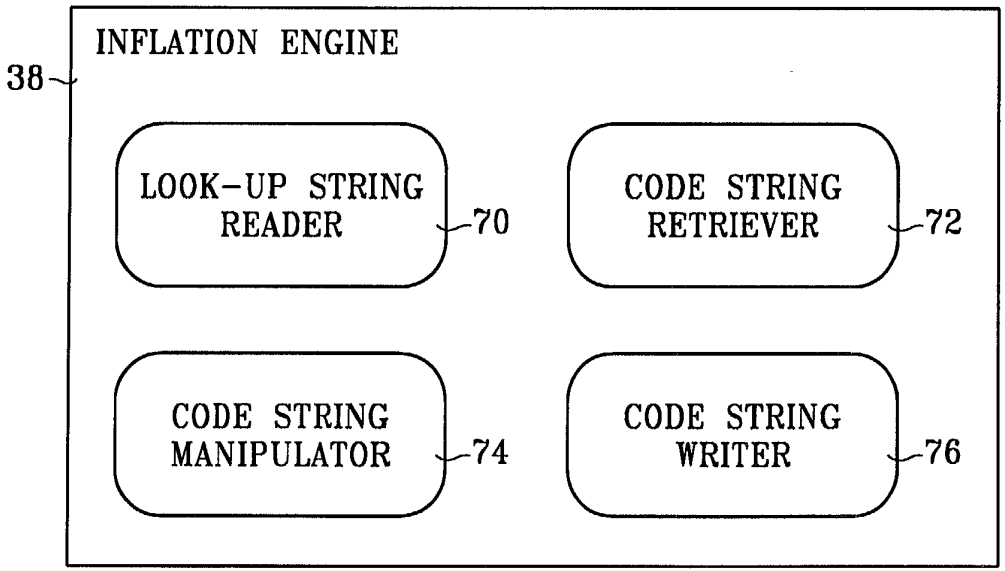
INFLATION ENGINE
38
LOOK-UP STRING READER
70
CODE STRING RETRIEVER
72
CODE STRING MANIPULATOR
74
CODE STRING WRITER
76

FIG. 9

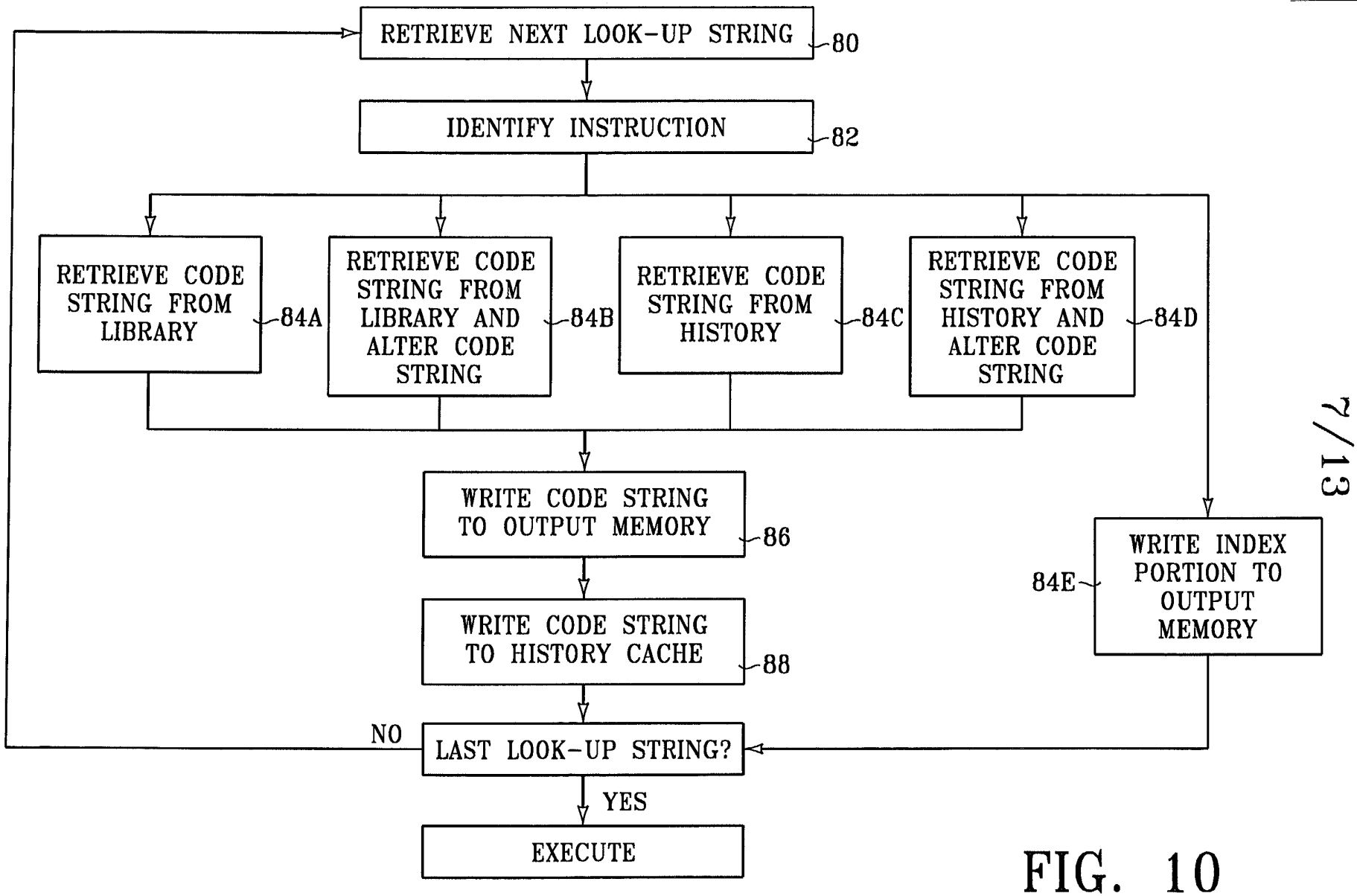
RETRIEVE NEXT LOOK-UP STRING
80
IDENTIFY INSTRUCTION
82
RETRIEVE CODE STRING FROM LIBRARY
84A
RETRIEVE CODE STRING FROM LIBRARY AND ALTER CODE STRING
84B
RETRIEVE CODE STRING FROM HISTORY
84C
RETRIEVE CODE STRING FROM HISTORY AND ALTER CODE STRING
84D
WRITE INDEX PORTION TO OUTPUT MEMORY
84E
WRITE CODE STRING TO OUTPUT MEMORY
86
WRITE CODE STRING TO HISTORY CACHE
88
NO
LAST LOOK-UP STRING?
YES
EXECUTE

FIG. 10

52	SEGMENT 0000	16 INDEXED POSITIONS 4 BIT INDEX
52	SEGMENT 0001	32 INDEXED POSITIONS 5 BIT INDEX
52	SEGMENT 0010	64 INDEXED POSITIONS 6 BIT INDEX
52	SEGMENT 0011	128 INDEXED POSITIONS 7 BIT INDEX
52	SEGMENT 0100	256 INDEXED POSITIONS 8 BIT INDEX
52	SEGMENT 0101	512 INDEXED POSITIONS 9 BIT INDEX
52	SEGMENT 0110	1024 INDEXED POSITIONS 10 BIT INDEX
52	SEGMENT 0111	2048 INDEXED POSITIONS 11 BIT INDEX
52	SEGMENT 1000	4096 INDEXED POSITIONS 12 BIT INDEX
52	SEGMENT 1001	8192 INDEXED POSITIONS 13 BIT INDEX

50

FIG. 11

56	0000	CODE STRING 54
56	0001	CODE STRING 54
56	0010	CODE STRING 54
56	0011	CODE STRING 54
56	0100	CODE STRING 54
56	0101	CODE STRING 54
56	0110	CODE STRING 54
56	0111	CODE STRING 54
56	1000	CODE STRING 54
56	1001	CODE STRING 54
56	1010	CODE STRING 54
56	1011	CODE STRING 54
56	1100	CODE STRING 54
56	1101	CODE STRING 54
56	1110	CODE STRING 54
56	1111	CODE STRING 54

52

FIG. 12

64

	LOOK-UP STRING		
	66	68	
OPERATION	**INSTRUCTION PORTION**	**INDEX PORTION**	**TOTAL BITS**
Library Retrieve/Write	0000	0000 *through* 1111	8
Library Retrieve/Write	0000	00000 *through* 11111	9
Library Retrieve/Write	0000	000000 *through* 111111	10
Library Retrieve/Write	0000	0000000 *through* 1111111	11
Library Retrieve/Write	0000	00000000 *through* 11111111	12
Library Retrieve/Write	0000	000000000 *through* 111111111	13
Library Retrieve/Write	0000	0000000000 *through* 1111111111	14
Library Retrieve/Write	0000	00000000000 *through* 11111111111	15
Library Retrieve/Write	0000	000000000000 *through* 111111111111	16
Library Retrieve/Write	0000	0000000000000 *through* 1111111111111	17

FIG. 13

	64 LOOK-UP STRING			
	66	68		
Operation	**INSTRUCTION PORTION**	**INDEX PORTION**		**Total Bits**
Library *-Retrieve-* *-Alter 1 BIT-* *-Write-*	1011	00000000000000 *through* 1111111111111 *-plus-* 00000 *through* 11111	*Position* *Bit*	*23*
Library *-Retrieve-* *-Alter S127-* *-Write-*	1100	00000000000000 *through* 1111111111111 *-plus-* 00000000 *through* 11111111	*Position* *Byte*	*26*
Library *-Retrieve-* *-Alter 1 BYTE-* *-Write-*	1101	00000000000000 *through* 1111111111111 *-plus-* 00000000 *through* 11111111	*Position* *Byte*	*26*
Library *-Retrieve-* *-Alter 2 BITS-* *-Write-*	11100	00000000000000 *through* 1111111111111 *-plus-* 00000 *through* 11111 *-plus-* 00000 *through* 11111	*Position* *Bit* *Bit*	*29*

FIG. 14

64

	LOOK-UP STRING			
	66	68		
Operation	**INSTRUCTION PORTION**	**INDEX PORTION**		**Total Bits**
History *-Retrieve-* *-Write-*	11101	00000000000000 *through* 11111111111111 *-plus-* 000 *through* 111	*Position* *Times Dup.*	*22*
History *-Retrieve-* *-Duplicate-*	11110	00000 *through* 11111	*Times Dup.*	*10*
History *-Retrieve-* *-Alter 1 BIT-* *-Write-*	11111	0000000000000 *through* 1111111111111 *-plus-* 00000 *through* 11111	*Position* *Bit*	*24*

FIG. 15A

64

	LOOK-UP STRING			
	66	68		
Operation	**INSTRUCTION PORTION**	**INDEX PORTION**		**Total Bits**
History *-Retrieve-* *-Write-*	11101	00000000000000 *through* 11111111111111 *-plus-* 000 *through* 111	*Position* *Times Dup.*	*22*
History *-Retrieve-* *-Alter 1 BIT-* *-Write-*	11111	0000000000000 *through* 1111111111111 *-plus-* 00000 *through* 11111	*Position* *Bit*	*24*
History *-Retrieve-* *-Alter 2 BITS-* *-Write-*	111101	00000000000000 *through* 1111111111111 *-plus-* 00000 *through* 11111 *-plus-* 00000 *through* 11111	*Position* *Bit* *Bit*	*30*

FIG. 15B